



Topic 6: Designing Electric Utility Rates

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Discussion Points

- **Review of Simulations**
 - **Baseline Simulation**
 - **Status Quo Simulation**
 - **Alternative Scenarios Simulation**
- **Designing Electric Utility Rates**
 - **Candidate Rates**
 - **Optimal Utility Rate Design**
 - **End Result**



Review of Simulations

Baseline Simulation

- **Objective: Capture current conditions of power markets**
- **Base year: 2003 or 2004**
- **Outputs: Replication of existing conditions in island power markets**

Status Quo Simulation

- **Objective: Capture the operations of power markets in Hawaii over several future years under cost-of-service regulation**
- **Study period: 20 to 30 Years**
- **Outputs: Forecast electric utility rate designs under cost-of-service regulation**

Alternative Scenarios Simulation

- **Objective: Capture the operations of power markets in Hawaii over several future years under alternative regulatory regimes**
- **Study period: 20 to 30 years**
- **Outputs: Forecast electric utility rate designs under alternative regulatory regimes**



Designing Electric Utility Rates

Candidate Rates (1)

- **Estimated from Status Quo & Alternative Scenarios Simulations**
- **Variations of estimates through lessons from**
 - **Current or best practices of RPS**
 - **Current or best practices of PBR**
- **Social welfare implications & efficiency & equity effects**

Candidate Rates (2)

- **Allocative & productive efficiency**
- **Cost causality**
 - Signaling the true cost of power
 - Encouragement of efficient usage
- **Pricing at opportunity cost**
 - Cost recovery
 - Encouragement of investments

Optimal Utility Rate Design

- **Maximizes social welfare**
- **Satisfies the Commission's legislative mandate to formulate an electric utility rate design that**
 - **Enables the achievement of the RPS**
 - **Encourages investments in renewables**
 - **Conforms to current or existing regulatory regimes**
 - **Provides utilities with an opportunity to earn a reasonable rate of return**

End Result

- **A document**
 - **Forming the basis of a set of rules for adoption in a future conventional rulemaking process**
 - **Providing inputs to the Commission's decisions on electric utility ratemaking**



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